AMENDMENTS TO THE CLAIMS

Please **CANCEL** claims 8 and 23-24 without prejudice or disclaimer to the subject matter contained therein.

Please **AMEND** claims 1-7, 9-22, and 25-32 as shown below.

Please **ADD** claims 33-46 as shown below.

The following is a complete list of all claims in this application.

1.   (Currently Amended) A liquid crystal display, comprising:

a liquid crystal display panel for displaying picture images; and

a color correction unit;

wherein upon receipt of raw RGB picture data corresponding to raw RGB gamma curves, the color correction unit generates corrected RGB picture data based on values over a predetermined imaginative gamma curve established in accordance with the characteristic of the liquid crystal display panel, stores values over corrected RGB gamma curves corresponding to the corrected picture data, and gamma-corrects the raw RGB picture data based on values over the stored corrected RGB gamma curves.

2.   (Currently Amended) The liquid crystal display of claim 1, wherein the number of bits in the corrected picture data is altered through making bit extension with respect the raw picture data.

3.   (Currently Amended) The liquid crystal display of claim 1, wherein the imaginative gamma curve is the G gamma curve adapted to the G picture data.

--2--

4. (Currently Amended) The liquid crystal display of claim 3, wherein the corrected

gamma curves are approximated to the G gamma curve.

5. (Currently Amended) The liquid crystal display of claim 1, wherein the liquid

crystal display panel makes the display in a <u>vertical alignment</u> (VA) mode.

6. (Currently Amended) The liquid crystal display of claim 1, wherein the liquid

crystal display panel makes the display in a <u>patterned vertical alignment</u> (PVA) mode.

7. (Currently Amended) A liquid crystal display, comprising:

a vertically aligned mode liquid crystal display panel for displaying picture images; and

a color correction unit;

wherein upon receipt of raw RGB picture data corresponding to raw RGB gamma curves,

the color correction unit transforms the raw RGB picture data into corrected RGB picture data

based on values over a predetermined imaginative gamma curve established in accordance with

the characteristic of the vertically aligned mode liquid crystal display panel, stores values over

corrected RGB gamma curves corresponding to the transformed corrected picture data, and

gamma-corrects the raw RGB picture data based on values over the stored corrected RGB

gamma curves.

8. (Canceled)

--3--

9.   (Currently Amended) The liquid crystal display of claim ~~1~~ 7, wherein the vertically aligned mode liquid crystal display panel ~~makes the display in~~ is a patterned vertical alignment (PVA) mode.

10.   (Currently Amended) The liquid crystal display of claim 7, wherein the corrected gamma curves intercept overlapping of the input picture data through gray scale extension.

11.   (Currently Amended) A liquid crystal display, comprising:

a liquid crystal display panel having an internal layer of liquid crystal with a predetermined property, a plurality of gate lines transmitting scanning signals, a plurality of data lines transmitting picture signals, and switching circuits connected to the gate and the data lines;

a scan driver sequentially applying gate on voltages for turning-on the switching circuits to the gate lines;

a data driver applying data voltages for representing picture signals to the data lines; and

a control unit, at initial driving, generating corrected picture data corresponding to raw RGB picture data fed from the outside while storing the corrected picture data into a predetermined memory, and after the initial driving, upon receipt of raw RGB picture data from the outside, extracting corrected picture data corresponding to the raw RGB picture data from the memory while transmitting the extracted picture data to the data driver, and generating timing signals for controlling the operation of the scan driver and the data driver while outputting the generated timing signals to the scan driver and the data driver, respectively.

--4--

12.   (Currently Amended) The liquid crystal display of claim 11, wherein the control unit receives picture signals corresponding to respective RGB gamma curves from the outside, normalizes the RGB gamma curves into one gamma curve, and controls the gray scale levels of the picture signals input from the outside based on the normalized gamma curve.

13.   (Currently Amended) The liquid crystal display of claim 11, wherein the control unit comprises:

a color correction unit, at initial driving, receives raw RGB picture data from an external graphic controller and transforms the raw RGB picture data into corrected picture data while storing the corrected picture data into the memory, and after the initial driving, upon receipt of raw RGB picture data from the outside, extracting the corrected picture data corresponding to the raw RGB picture data from the memory and transforming the extracted picture data into multi-gray scales; and

a timing control unit outputting the transformed picture data to the data driver, and generating timing signals for controlling the operation of the scan driver and the data driver while outputting the generated timing signals to the scan driver and the data driver, respectively.

14.   (Currently Amended) The liquid crystal display of claim 11, wherein the control unit comprises:

a timing control unit generating timing signals for controlling the operation of the scan driver and the data driver while outputting the generated timing signals to the scan driver and the data driver, and outputting the raw RGB picture data input from the outside; and

a color correction unit, at initial driving, receives raw RGB picture data from an external graphic controller and transforms the raw RGB picture data into corrected picture data while storing the corrected picture data into the memory, and after the initial driving, upon receipt of raw RGB picture data from the outside, extracting the corrected picture data corresponding to the raw RGB picture data from the memory and transforming the extracted picture data into multi-gray scales while outputting the transformed picture data to the data driver.

15.   (Currently Amended) The liquid crystal display of claim 13 or 14, wherein the color correction unit further makes a treatment of dithering.

16.   (Currently Amended) The liquid crystal display of claim 13 or 14, wherein the color correction unit comprises:

a volatile memory;

a data controller, at initial driving, receiving raw RGB picture data from the outside and generating corrected picture data while storing the corrected picture data into the volatile memory, and after the initial driving, upon receipt of raw RGB picture data from the outside, outputting corrected picture data corresponding to the raw picture data from the volatile memory; and

an FRC unit transforming the corrected picture data into gray scale data, and outputting the gray scale data to the data driver.

17.   (Currently Amended) The liquid crystal display of claim 16, wherein the color correction unit further comprises a memory control unit, the memory control unit storing values

over an imaginative gamma curve corresponding to the characteristic of the liquid crystal display

panel, and at initial driving, feeding gamma data corresponding to the values over the

imaginative gamma curve to the volatile memory while controlling the storing.

18.   (Currently Amended) The liquid crystal display of claim 17, wherein the memory

control unit comprises:

a non-volatile memory storing the corrected picture data corresponding to the

characteristic of the liquid crystal display panel; and

a memory controller, at initial driving, controlling the storing of the gamma data

corresponding to the imaginative gamma curve into the non-volatile memory.

19.   (Currently Amended) The liquid crystal display of claim 11, wherein the

corrected picture data are generated based on a predetermined imaginative gamma curve.

20.   (Currently Amended) The liquid crystal display of claim 11, wherein the bit

number of the corrected picture data is the same as the bit number of the raw picture data.

21.   (Currently Amended) The liquid crystal display of claim 11, wherein the

corrected picture data are obtained through bit extension of the raw picture data.

22.   (Currently Amended) The liquid crystal display of claim 13 or 14, wherein the

multi-gray scale transformation is made through frame rate control (FRC).

23.   (Cancelled)

24.   (Cancelled)

25.   (Currently Amended) A driving unit for a liquid crystal display, the liquid

crystal display having a layer of liquid crystal with a predetermined property, a plurality of gate

lines, a plurality of data lines crossing over the gate lines while being insulated from the gate

lines, and pixels surrounded by the gate and data lines each with a switching circuit connected to

the corresponding gate and the data lines, the pixels being arranged in a matrix form, the driving

unit for the liquid crystal display, comprising:

a scan driver sequentially applying gate on voltages for turning-on the switching circuits

to the plurality of gate lines;

a data driver applying data voltages for representing picture signals to the data lines; and

a control unit, at initial driving, generating corrected picture data corresponding to raw

RGB picture data fed from the outside while storing the corrected picture data into a

predetermined memory, and after the initial driving, upon receipt of raw RGB picture data from

the outside, extracting corrected picture data corresponding to the raw RGB picture data from the

memory while transmitting the extracted picture data to the data driver, and generating timing

signals for controlling the operation of the scan driver and the data driver while outputting the

generated timing signals to the scan driver and the data driver, respectively.

26.   (Currently Amended) The driving unit for the liquid crystal display of claim 25,

wherein the liquid crystal display panel makes the display in a <u>vertical alignment mode (VA)</u>

mode.

27.   (Currently Amended) The driving unit for the liquid crystal display of claim 25,

wherein the liquid crystal display panel makes the display in a <u>patterned vertical alignment</u>

<u>(PVA)</u> mode.

28.   (Currently Amended) A method of driving a liquid crystal display, the liquid

crystal display having a layer of liquid crystal with a predetermined property, a plurality of gate

lines, a plurality of data lines crossing over the gate lines while being insulated from the gate

lines, and pixels surrounded by the gate and data lines each with a switching circuit connected to

the corresponding gate and data lines, the pixels being arranged in a matrix form, the method

comprising the steps of:

(a)   sequentially transmitting scanning signals to the gate lines;

(b)   upon receipt of RGB gray scale data for displaying picture images from the

outside, establishing RGB gammas based on the RGB gray scale data <u>and predetermined</u>

<u>imaginative gamma curves</u>, and generating data voltages based on the established RGB gammas;

and

(c)   feeding the data voltages generated at the (b) step to the data lines.

29.   (Currently Amended) The method of claim 28 wherein the (b) step comprises the

sub-steps of:

(b-1)   ~~establishing a predetermined imaginative gamma curve;~~

(b-2) (b-1) at initial driving, receiving raw RGB picture data adapted to RGB gamma curves from the outside, and detecting light transmissions corresponding to grays of the raw picture data over the imaginative gamma curve;

(b-3) (b-2) detecting gray values of the raw picture data corresponding to the detected light transmissions from the relevant gamma curves; and

(b-4) (b-3) transforming the gray values detected at the (b-3) step into a predetermined number of bits, and storing the bit-transformed gray values.

30.   (Currently Amended) The method of claim 29 wherein the (b) step further comprises the sub-steps of:

(b-5) (b-4) after the initial driving, receiving raw picture data adapted to a predetermined gamma curve from the outside, and detecting the stored bit-transformed gray values; and

(b-6) (b-5) transforming the detected gray values into multi-gray scales, and generating data voltages for the data lines.

31.   (Currently Amended) The method of claim 29 or 30, wherein the imaginative gamma curve is established to be optimally adapted to the characteristic of the liquid crystal display panel.

32.   (Currently Amend   m ed)   The method of claim 29 or 30, wherein the imaginative gamma curve is one of the RGB gamma curves.

33. (New) A liquid crystal display, comprising:

a liquid crystal display panel for displaying picture images; and

a color correction unit for generating first corrected RGB picture data corresponding to

input RGB picture data and for outputting second corrected RGB picture data in accordance with

the first corrected picture data,

wherein the first corrected RGB picture data has a bit number equal to or more than a

bit number of the input RGB picture data and the second corrected RGB picture data has a bit

number equal to or less than the bit number of the first corrected RGB picture data.

34. (New) The liquid crystal display of claim 33, further comprising a memory to

store the first corrected RGB picture data.

35. (New) The liquid crystal display of claim 34, wherein the memory comprises at

least one of a random access memory (RAM) or a read-only memory (ROM).

37. (New) A liquid crystal display, comprising:

a liquid crystal display panel having an internal layer of liquid crystal with a

predetermined property, a plurality of gate lines for transmitting scanning signals, a plurality of

data lines for transmitting picture signals, and switching circuits connected to the gate and the

data lines;

a scan driver sequentially applying a gate on voltage for turning on the switching

circuits to the gate lines;

a data driver applying data voltages for representing picture signals to the data lines; and

a color correction unit for generating first corrected RGB picture data corresponding to input RGB picture data and for outputting second corrected RGB picture data in accordance with the first corrected picture data,

wherein the color correction unit comprises:

a first memory to store the first corrected RGB picture data; and

a multi-grayscale unit to output the second corrected RGB picture data adapted to the data driver.

38. (New) The liquid crystal display of claim 37, wherein the color correction unit further comprises:

a second memory to store the first corrected RGB picture data; and

a memory controller to control the first and second memories.

39. (New) The liquid crystal display of claim 38, wherein the first corrected RGB picture data has a bit number equal to or more than a bit number of the input RGB picture data and the second corrected RGB picture data has a bit number equal to or less than the bit number of the first corrected RGB picture data.

40. (New) The liquid crystal display of claim 39, wherein the first memory comprises at least one of a random access memory (RAM) or a read-only memory (ROM).

41. (New) The liquid crystal display of claim 40, wherein the multi-grayscale unit generates the second corrected RGB picture data by means of dithering and frame rate control (FRC).

42. (New) The liquid crystal display of claim 39, wherein the second memory comprises a ROM.

43. (New) The liquid crystal display of claim 37, wherein the liquid crystal display panel makes the display in a vertical alignment (VA) mode.

44. (New) The liquid crystal display of claim 43, wherein the liquid crystal display panel makes the display in a patterned vertical alignment (PVA) mode.

45. (New) A method of driving a liquid crystal display, the liquid crystal display having a layer of liquid crystal with a predetermined property, a plurality of gate lines, a plurality of data lines crossing over the gate lines while being insulated from the gate lines, and pixels surrounded by the gate and data lines and arranged in a matrix form, each pixel having a switching circuit connected to the corresponding gate and data lines, the method comprising:

sequentially transmitting scanning signals to the gate lines;

generating first corrected RGB picture data corresponding to input RGB picture data;

outputting second corrected RGB picture data in accordance with the first corrected picture data; and

supplying the second corrected RGB picture data to the data lines.

46. (New) The method of claim 45, wherein the first corrected RGB picture data has a bit number equal to or more than a bit number of the input RGB picture data and the second corrected RGB picture data has a bit number equal to equal to or less than the bit number of the first corrected RGB picture data.